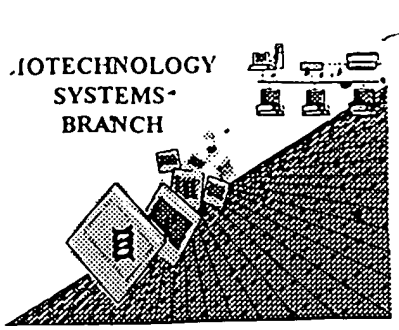
0590
1011



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/759,130A

Source: OIPE

Date Processed by STIC: 10/4/2001

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PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)
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http://www.uspto.gov/web/offices/pac/checker

OIPE

RAW SEQUENCE LISTING DATE: 10/04/2001
PATENT APPLICATION: US/09/759,130A TIME: 13:00:32

Input Set : A:\10147-61.app
Output Set: N:\CRF3\10042001\I759130A.raw

Does Not Comply
Corrected Diskette Needed

pp 4, 5, 18

3 <110> APPLICANT: MCCARTHY, Sean A
4 FRASER, Christopher C
5 SHARP, John D
6 BARNES, Thomas S
7 KIRST, Susan J
8 MACKAY, Charles R
9 MYERS, Paul S
10 LEIBY, Kevin R
11 WRIGHTON, Nicholas
12 GOODEARL, Andrew
13 HOLTZMAN, Douglas A
15 <120> TITLE OF INVENTION: NOVEL GENES ENCODING PROTEINS HAVING PROGNOSTIC,
16 DIAGNOSTIC, PREVENTIVE, THERAPEUTIC, AND OTHER USES
18 <130> FILE REFERENCE: 210147.0066/66US
20 **<140> CURRENT APPLICATION NUMBER: US/09/759,130A**
21 **<141> CURRENT FILING DATE: 2001-01-19**
23 <150> PRIOR APPLICATION NUMBER: US 09/479,249
24 <151> PRIOR FILING DATE: 2000-01-07
26 <150> PRIOR APPLICATION NUMBER: US 09/559,497
27 <151> PRIOR FILING DATE: 2000-04-27
29 <150> PRIOR APPLICATION NUMBER: US 09/578,063
30 <151> PRIOR FILING DATE: 2000-05-24
32 <150> PRIOR APPLICATION NUMBER: US 09/333,159
33 <151> PRIOR FILING DATE: 1999-06-14
35 <150> PRIOR APPLICATION NUMBER: US 09/596,194
36 <151> PRIOR FILING DATE: 2000-07-14
38 <150> PRIOR APPLICATION NUMBER: US 09/342,364
39 <151> PRIOR FILING DATE: 1999-06-29
41 <150> PRIOR APPLICATION NUMBER: US 09/608,452
42 <151> PRIOR FILING DATE: 2000-06-30
44 <150> PRIOR APPLICATION NUMBER: US 09/393,996
45 <151> PRIOR FILING DATE: 1999-09-10
47 <150> PRIOR APPLICATION NUMBER: US 09/602,871
48 <151> PRIOR FILING DATE: 2000-06-23
50 <150> PRIOR APPLICATION NUMBER: US 09/420,707
51 <151> PRIOR FILING DATE: 1999-10-19
53 <160> NUMBER OF SEQ ID NOS: 460
55 <170> SOFTWARE: PatentIn Ver. 2.1

ERRORED SEQUENCES

216 <210> SEQ ID NO: 3
217 <211> LENGTH: 1151 911 (p. 4)
218 <212> TYPE: PRT
219 <213> ORGANISM: Homo sapiens
221 <400> SEQUENCE: 3

RAW SEQUENCE LISTING DATE: 10/04/2001
PATENT APPLICATION: US/09/759,130A TIME: 13:00:32

Input Set : A:\10147-61.app
Output Set: N:\CRF3\10042001\I759130A.raw

```
222 Met His Gln Met Asn Ala Lys Met His Phe Arg Phe Val Phe Ala Leu
223   1               5                  10                  15
225 Leu Ile Val Ser Phe Asn His Asp Val Leu Gly Lys Asn Leu Lys Tyr
226              20                  25                  30
228 Arg Ile Tyr Glu Glu Gln Arg Val Gly Ser Val Ile Ala Arg Leu Ser
229          35                  40                  45
231 Glu Asp Val Ala Asp Val Leu Leu Lys Leu Pro Asn Pro Ser Thr Val
232      50                  55                  60
234 Arg Phe Arg Ala Met Gln Arg Gly Asn Ser Pro Leu Leu Val Val Asn
235  65                  70                  75                  80
237 Glu Asp Asn Gly Glu Ile Ser Ile Gly Ala Thr Ile Asp Arg Glu Gln
238                  85                  90                  95
240 Thr Leu Pro Thr Glu His Leu Gln Leu Phe His Ile Glu Val Glu Val
241             100                 105                 110
243 Leu Asp Ile Asn Asp Asn Ser Pro Gln Phe Ser Arg Ser Leu Ile Pro
244         115                 120                 125
246 Ile Glu Ile Ser Glu Ser Ala Ala Val Gly Thr Arg Ile Pro Leu Asp
247     130                 135                 140
249 Ser Ala Phe Asp Pro Asp Val Gly Glu Asn Ser Leu His Thr Tyr Ser
250 145                 150                 155                 160
252 Leu Ser Ala Asn Asp Phe Phe Asn Ile Glu Val Arg Thr Arg Thr Asp
253                 165                 170                 175
255 Glu Leu Lys Ser Ser Tyr Glu Leu Gln Leu Thr Ala Ser Asp Met Gly
256             180                 185                 190
258 Val Pro Gln Arg Ser Gly Ser Ser Ile Leu Lys Ile Ser Ile Ser Asp
259         195                 200                 205
261 Ser Asn Asp Asn Ser Pro Ala Phe Glu Gln Gln Ser Tyr Ile Ile Gln
262     210                 215                 220
264 Leu Leu Glu Asn Ser Pro Val Gly Thr Leu Leu Leu Asp Leu Asn Ala
265 225                 230                 235                 240
267 Thr Asp Pro Asp Glu Gly Ala Asn Gly Lys Ile Val Tyr Ser Phe Ser
268                 245                 250                 255
270 Ser His Val Ser Pro Lys Ile Met Glu Thr Phe Lys Ile Asp Ser Glu
271             260                 265                 270
273 Lys Ser Tyr Glu Ile Asp Val Gln Ala Gln Asp Leu Gly Pro Asn Ser
274         275                 280                 285
276 Ile Pro Ala His Cys Lys Ile Ile Ile Lys Val Val Asp Val Asn Asp
277     290                 295                 300
279 Asn Lys Pro Glu Ile Asn Ile Asn Leu Met Ser Pro Gly Lys Glu Glu
280 305                 310                 315                 320
282 Ile Ser Tyr Ile Phe Glu Gly Asp Pro Ile Asp Thr Phe Val Ala Leu
283                 325                 330                 335
285 Val Arg Val Gln Asp Lys Asp Ser Gly Leu Asn Gly Glu Ile Val Cys
286             340                 345                 350
288 Asn Asn Tyr Leu Ile Leu Thr Asn Ala Thr Leu Asp Arg Glu Lys Arg
289         355                 360                 365
291 Ser Glu Tyr Ser Leu Thr Val Ile Ala Glu Asp Arg Gly Thr Pro Ser
292     370                 375                 380
294 Leu Ser Thr Val Lys His Phe Thr Val Gln Ile Asn Asp Ile Asn Asp
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RAW SEQUENCE LISTING DATE: 10/04/2001
PATENT APPLICATION: US/09/759,130A TIME: 13:00:32

Input Set : A:\10147-61.app
Output Set: N:\CRF3\10042001\I759130A.raw

```
295 385                 390                 395                 400
297 Asn Pro Pro His Phe Gln Arg Ser Arg Tyr Glu Phe Val Ile Ser Glu
298                 405                 410                 415
300 Asn Asn Ser Pro Gly Ala Tyr Ile Thr Thr Val Thr Ala Thr Asp Pro
301             420                 425                 430
303 Phe Ile Leu Gly Ser Ser Ile Thr Thr Tyr Val Thr Ile Asp Pro Ser
304         435                 440                 445
306 Asn Gly Ala Ile Tyr Ala Leu Arg Ile Phe Asp His Glu Glu Val Ser
307     450                 455                 460
309 Gln Ile Thr Phe Val Val Glu Ala Arg Asp Gly Gly Ser Pro Lys Gln
310 465                 470                 475                 480
312 Leu Val Ser Asn Thr Thr Val Val Leu Thr Ile Ile Asp Glu Asn Asp
313                 485                 490                 495
315 Asn Val Pro Val Val Ile Gly Pro Ala Leu Arg Asn Asn Thr Ala Glu
316             500                 505                 510
318 Ile Thr Ile Pro Lys Gly Ala Glu Ser Gly Phe His Val Thr Arg Ile
319         515                 520                 525
321 Ala Ile Val Ala Gly Asn Glu Glu Asn Ile Phe Ile Ile Asp Pro Arg
322     530                 535                 540
324 Ser Cys Asp Ile His Thr Asn Val Ser Met Asp Ser Val Pro Tyr Thr
325 545                 550                 555                 560
327 Glu Trp Glu Leu Ser Val Ile Ile Gln Asp Lys Gly Asn Pro Gln Leu
328                 565                 570                 575
330 His Thr Lys Val Leu Leu Lys Cys Met Ile Phe Glu Tyr Ala Glu Ser
331             580                 585                 590
333 Val Thr Ser Thr Ala Met Thr Ser Val Ser Gln Ala Ser Leu Asp Val
334         595                 600                 605
336 Leu Val Ile Met Val Leu Phe Ala Thr Arg Cys Asn Arg Glu Lys Lys
337     610                 615                 620
339 Asp Thr Arg Ser Tyr Asn Cys Arg Val Ala Glu Ser Thr Tyr Gln His
340 625                 630                 635                 640
342 His Pro Lys Arg Pro Ser Arg Gln Ile His Lys Gly Asp Ile Thr Leu
343                 645                 650                 655
345 Val Pro Thr Ile Asn Gly Thr Leu Pro Ile Arg Ser His His Arg Ser
346             660                 665                 670
348 Ser Pro Ser Ser Ser Pro Thr Leu Glu Arg Gly Gln Met Gly Ser Arg
349         675                 680                 685
351 Ser Ser Asn His Val Pro Glu Asn Phe Ser Leu Glu Leu Thr His Ala
352     690                 695                 700
354 Thr Pro Ala Val Glu Gln Val Ser Gln Leu Leu Ser Met Leu His Gln
355 705                 710                 715                 720
357 Gly Gln Tyr Gln Pro Arg Pro Ser Phe Arg Gly Asn Lys Tyr Ser Arg
358                 725                 730                 735
360 Ser Tyr Arg Tyr Ala Leu Gln Asp Met Asp Lys Phe Ser Leu Lys Asp
361             740                 745                 750
363 Ser Gly Arg Gly Asp Ser Glu Ala Gly Asp Ser Asp Tyr Asp Leu Gly
364         755                 760                 765
366 Arg Asp Ser Pro Ile Asp Arg Leu Leu Gly Glu Gly Phe Ser Asp Leu
367     770                 775                 780
```

RAW SEQUENCE LISTING DATE: 10/04/2001
PATENT APPLICATION: US/09/759,130A TIME: 13:00:32

Input Set : A:\10147-61.app
Output Set: N:\CRF3\10042001\I759130A.raw

```
369 Glu Glu Cys Arg Val Leu Gly His Ser Asp Gln Cys Trp Met Pro Pro
370 785                 790                 795                 800
372 Leu Pro Ser Pro Ser Ser Asp Tyr Arg Ser Asn Met Phe Ile Pro Gly
373                 805                 810                 815
375 Glu Glu Phe Pro Thr Gln Pro Gln Gln Gln His Pro His Gln Ser Leu
376             820                 825                 830
378 Glu Asp Asp Ala Gln Pro Ala Asp Ser Gly Glu Lys Lys Lys Ser Phe
379         835                 840                 845
381 Ser Thr Phe Gly Lys Asp Ser Pro Asn Asp Glu Asp Thr Gly Asp Thr
382     850                 855                 860
384 Val Asp Arg Ser Asn Ser Leu Glu Arg Arg Lys Gly Pro Leu Pro Ala
385 865                 870                 875                 880
387 Glu Glu Ile Pro Glu Asn Tyr Glu Glu Asp Asp Phe Asp Asn Val Leu
388                 885                 890                 895
390 Leu Val Ala Glu Ile Asn Lys Leu Leu Gln Asp Val Arg Gln Ser
E--> 391             900                 905                 910
1579 <210> SEQ ID NO: 38
1580 <211> LENGTH: 425 295 (p.5)
1581 <212> TYPE: PRT
1582 <213> ORGANISM: Homo sapiens
1584 <400> SEQUENCE: 38
1585 Ala Thr Arg Cys Asn Arg Glu Lys Lys Asp Thr Arg Ser Tyr Asn Cys
1586   1               5                  10                  15
1588 Arg Val Ala Glu Ser Thr Tyr Gln His His Pro Lys Arg Pro Ser Arg
1589              20                  25                  30
1591 Gln Ile His Lys Gly Asp Ile Thr Leu Val Pro Thr Ile Asn Gly Thr
1592          35                  40                  45
1594 Leu Pro Ile Arg Ser His His Arg Ser Ser Pro Ser Ser Ser Pro Thr
1595      50                  55                  60
1597 Leu Glu Arg Gly Gln Met Gly Ser Arg Gln Ser His Asn Ser His Gln
1598  65                  70                  75                  80
1600 Asn Phe Ser Leu Glu Leu Thr His Ala Thr Pro Ala Val Glu Val Ser
1601                  85                  90                  95
1603 Gln Leu Leu Ser Met Leu His Gln Gly Gln Tyr Gln Pro Arg Pro Ser
1604             100                 105                 110
1606 Phe Arg Gly Asn Lys Tyr Ser Arg Ser Tyr Arg Tyr Ala Leu Gln Asp
1607         115                 120                 125
1609 Met Asp Lys Phe Ser Leu Lys Asp Ser Gly Arg Gly Asp Ser Glu Ala
1610     130                 135                 140
1612 Gly Asp Ser Asp Tyr Asp Leu Gly Arg Asp Ser Pro Ile Asp Arg Leu
1613 145                 150                 155                 160
1615 Pro Ala Ala Met Arg Leu Cys Thr Glu Glu Cys Arg Val Leu Gly His
1616                 165                 170                 175
1618 Ser Asp Gln Cys Trp Met Pro Pro Leu Pro Ser Pro Ser Ser Asp Tyr
1619             180                 185                 190
1621 Arg Ser Asn Met Phe Ile Pro Gly Glu Glu Phe Pro Thr Gln Pro Gln
1622         195                 200                 205
1624 Gln Gln His Pro His Gln Ser Leu Glu Asp Asp Ala Gln Pro Ala Asp
1625     210                 215                 220
```

RAW SEQUENCE LISTING DATE: 10/04/2001
PATENT APPLICATION: US/09/759,130A TIME: 13:00:32

Input Set : A:\10147-61.app
Output Set: N:\CRF3\10042001\I759130A.raw

```
1627 Ser Gly Glu Lys Lys Lys Ser Phe Ser Thr Phe Gly Lys Asp Ser Pro
1628 225                 230                 235                 240
1630 Ser Glu Met Ser Ser Val Phe Gln Arg Leu Leu Pro Pro Ser Leu Asp
1631                 245                 250                 255
1633 Thr Asn Cys Gly Pro Pro Leu Gly Thr His Ser Ser Val Gln Pro Ser
1634             260                 265                 270
1636 His Glu Leu Met Asp Ala Ser Glu Leu Val Ala Glu Ile Asn Lys Leu
1637         275                 280                 285
1639 Leu Gln Asp Val Arg Gln Ser
E--> 1640     290                 295
1762 <210> SEQ ID NO: 42
1763 <211> LENGTH: 1183 1135 (p.8)
1764 <212> TYPE: PRT
1765 <213> ORGANISM: Mus sp.
1767 <400> SEQUENCE: 42
1768 Met Met Leu Leu Leu Pro Phe Leu Leu Gly Leu Leu Gly Pro Gly Ser
1769   1               5                  10                  15
1771 Tyr Leu Phe Ile Ser Gly Asp Cys Gln Glu Val Ala Thr Val Met Val
1772              20                  25                  30
1774 Lys Phe Gln Val Thr Glu Glu Val Pro Ser Gly Thr Val Ile Gly Lys
1775          35                  40                  45
1777 Asp Ala Phe Gln Ile Leu Gln Leu Pro Gln Ala Leu Pro Val Gln Met
1778      50                  55                  60
1780 Asn Ser Glu Asp Gly Leu Leu Ser Thr Ser Ser Arg Leu Asp Arg Glu
1781  65                  70                  75                  80
1783 Lys Leu Cys Arg Gln Glu Asp Pro Cys Leu Val Ser Phe Asp Val Leu
1784                 85                  90                  95
1786 Ala Thr Gly Ala Ser Ala Leu Ile His Val Glu Ile Gln Val Leu Asp
1787             100                 105                 110
1789 Ile Asn Asp His Gln Pro Gln Phe Pro Lys Asp Glu Gln Glu Leu Glu
1790         115                 120                 125
1792 Ile Ser Glu Ser Ala Ser Leu His Thr Arg Ile Pro Leu Asp Arg Ala
1793     130                 135                 140
1795 Leu Asp Gln Asp Thr Gly Pro Asn Ser Leu Tyr Ser Tyr Ser Leu Ser
1796 145                 150                 155                 160
1798 Pro Ser Glu His Phe Ala Leu Asp Val Ile Val Gly Pro Asp Glu Thr
1799                 165                 170                 175
1801 Lys His Ala Glu Leu Val Val Val Lys Glu Leu Asp Arg Glu Leu His
1802             180                 185                 190
1804 Ser Tyr Phe Asp Leu Val Leu Thr Ala Tyr Asp Asn Gly Asn Pro Pro
1805         195                 200                 205
1807 Lys Ser Gly Ile Ser Val Val Lys Val Asn Val Leu Asp Ser Asn Asp
1808     210                 215                 220
1810 Asn Ser Pro Val Phe Ala Glu Ser Ser Leu Ala Leu Glu Ile Pro Glu
1811 225                 230                 235                 240
1813 Asp Thr Val Pro Gly Thr Leu Leu Ile Asn Leu Thr Ala Thr Asp Pro
1814                 245                 250                 255
1816 Asp Gln Gly Pro Asn Gly Glu Val Glu Phe Phe Phe Gly Lys His Val
1817             260                 265                 270
```

RAW SEQUENCE LISTING DATE: 10/04/2001
PATENT APPLICATION: US/09/759,130A TIME: 13:00:32

Input Set : A:\10147-61.app
Output Set: N:\CRF3\10042001\I759130A.raw

```
1819 Ser Pro Glu Val Met Asn Thr Phe Gly Ile Asp Ala Lys Thr Gly Gln
1820         275                 280                 285
1822 Ile Ile Leu Arg Gln Ala Leu Asp Tyr Glu Lys Asn Pro Ala Tyr Glu
1823     290                 295                 300
1825 Val Asp Val Gln Ala Arg Asp Leu Gly Pro Asn Ser Ile Pro Gly His
1826 305                 310                 315                 320
1828 Cys Lys Val Leu Ile Lys Val Leu Asp Val Asn Asp Asn Ala Pro Ser
1829                 325                 330                 335
1831 Ile Leu Ile Thr Trp Ala Ser Gln Thr Ser Leu Val Ser Glu Asp Leu
1832             340                 345                 350
1834 Pro Arg Asp Ser Phe Ile Ala Leu Val Ser Ala Asn Asp Leu Asp Ser
1835         355                 360                 365
1837 Gly Asn Asn Gly Leu Val His Cys Trp Leu Asn Gln Glu Leu Gly His
1838     370                 375                 380
1840 Phe Arg Leu Lys Arg Thr Asn Gly Asn Thr Tyr Met Leu Leu Thr Asn
1841 385                 390                 395                 400
1843 Ala Thr Leu Asp Arg Glu Gln Trp Pro Ile Tyr Thr Leu Thr Val Phe
1844                 405                 410                 415
1846 Ala Gln Asp Gln Gly Pro Gln Pro Leu Ser Ala Glu Lys Glu Leu Gln
1847             420                 425                 430
1849 Ile Gln Val Ser Asp Val Asn Asp Asn Ala Pro Val Phe Glu Lys Ser
1850         435                 440                 445
1852 Arg Tyr Glu Val Ser Thr Trp Glu Asn Asn Pro Pro Ser Leu His Leu
1853     450                 455                 460
1855 Ile Thr Leu Lys Ala His Asp Ala Asp Leu Gly Ser Asn Gly Lys Val
1856 465                 470                 475                 480
1858 Ser Tyr Arg Ile Lys Asp Ser Pro Val Ser His Leu Val Ile Ile Asp
1859                 485                 490                 495
1861 Phe Glu Thr Gly Glu Val Thr Ala Gln Arg Ser Leu Asp Tyr Glu Gln
1862             500                 505                 510
1864 Met Ala Gly Phe Glu Phe Gln Val Ile Ala Glu Asp Arg Gly Gln Pro
1865         515                 520                 525
1867 Gln Leu Ala Ser Ser Ile Ser Val Trp Val Ser Leu Leu Asp Ala Asn
1868     530                 535                 540
1870 Asp Asn Ala Pro Glu Val Ile Gln Pro Val Leu Ser Glu Gly Lys Ala
1871 545                 550                 555                 560
1873 Thr Leu Ser Val Leu Val Asn Ala Ser Thr Gly His Leu Leu Leu Pro
1874                 565                 570                 575
1876 Ile Glu Asn Pro Ser Gly Met Asp Pro Ala Gly Thr Gly Ile Pro Pro
1877             580                 585                 590
1879 Lys Ala Thr His Ser Pro Trp Ser Phe Leu Leu Leu Thr Ile Val Ala
1880         595                 600                 605
1882 Arg Asp Ala Asp Ser Gly Ala Asn Gly Glu Leu Phe Tyr Ser Ile Gln
1883     610                 615                 620
1885 Ser Gly Asn Asp Ala His Leu Phe Phe Leu Ser Pro Ser Leu Gly Gln
1886 625                 630                 635                 640
1888 Leu Phe Ile Asn Val Thr Asn Ala Ser Ser Leu Ile Gly Ser Gln Trp
1889                 645                 650                 655
1891 Asp Leu Gly Ile Val Val Glu Asp Gln Gly Ser Pro Ser Leu Gln Thr
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RAW SEQUENCE LISTING DATE: 10/04/2001
PATENT APPLICATION: US/09/759,130A TIME: 13:00:32

Input Set : A:\10147-61.app
Output Set: N:\CRF3\10042001\I759130A.raw

```
1892              660                 665                 670
1894 Gln Val Ser Leu Lys Val Val Phe Val Thr Ser Val Asp His Leu Arg
1895         675                 680                 685
1897 Asp Ser Ala His Glu Pro Gly Val Leu Ser Thr Pro Ala Leu Ala Leu
1898     690                 695                 700
1900 Ile Cys Leu Ala Val Leu Leu Ala Ile Phe Gly Leu Leu Leu Ala Leu
1901 705                 710                 715                 720
1903 Phe Val Ser Ile Cys Arg Thr Glu Arg Lys Asp Asn Arg Ala Tyr Asn
1904                 725                 730                 735
1906 Cys Arg Glu Ala Glu Ser Ser Tyr Arg His Gln Pro Lys Arg Pro Gln
1907             740                 745                 750
1909 Lys His Ile Gln Lys Ala Asp Ile His Leu Val Pro Val Leu Arg Ala
1910         755                 760                 765
1912 His Glu Asn Glu Thr Asp Glu Val Arg Pro Ser His Lys Asp Thr Ser
1913     770                 775                 780
1915 Lys Glu Thr Leu Met Glu Ala Gly Trp Asp Ser Cys Leu Glu Ala Pro
1916 785                 790                 795                 800
1918 Phe His Leu Thr Pro Thr Leu Tyr Arg Thr Leu Arg Asn Gln Gly Asn
1919                 805                 810                 815
1921 Gln Gly Glu Leu Ala Glu Ser Gln Glu Val Leu Gln Asp Thr Phe Asn
1922             820                 825                 830
1924 Phe Leu Phe Asn His Pro Arg Gln Arg Asn Ala Ser Arg Glu Asn Leu
1925         835                 840                 845
1927 Asn Leu Pro Glu Ser Pro Pro Ala Val Arg Gln Pro Leu Leu Arg Pro
1928     850                 855                 860
1930 Leu Lys Val Pro Gly Ser Pro Ile Ala Arg Ala Thr Gly Asp Gln Asp
1931 865                 870                 875                 880
1933 Lys Glu Glu Ala Pro Gln Ser Pro Pro Ala Ser Ser Ala Thr Leu Arg
1934                 885                 890                 895
1936 Arg Gln Arg Asn Phe Asn Gly Lys Val Ser Pro Arg Gly Glu Ser Gly
1937             900                 905                 910
1939 Pro His Gln Ile Leu Arg Ser Leu Val Arg Leu Ser Val Ala Ala Phe
1940         915                 920                 925
1942 Ala Glu Arg Asn Pro Val Glu Glu Pro Ala Gly Asp Ser Pro Pro Val
1943     930                 935                 940
1945 Gln Gln Ile Ser Gln Leu Leu Ser Leu Leu His Gln Gly Gln Phe Gln
1946 945                 950                 955                 960
1948 Pro Lys Pro Asn His Arg Gly Asn Lys Tyr Leu Ala Lys Pro Gly Gly
1949                 965                 970                 975
1951 Ser Ser Arg Gly Thr Ile Pro Asp Thr Glu Gly Leu Val Gly Leu Lys
1952             980                 985                 990
1954 Pro Ser Gly Gln Ala Glu Pro Asp Leu Glu Glu Gly Pro Pro Ser Pro
1955         995                1000                1005
1957 Leu Ser Ser Leu Leu Asp Pro Asn Thr Gly Leu Ala Leu Asp Lys Leu
1958    1010                1015                1020
1960 Ser Pro Pro Asp Pro Ala Trp Met Ala Arg Leu Ser Leu Pro Leu Thr
1961 1025                1030                1035                1040
1963 Ser Glu Glu Pro Arg Thr Phe Gln Thr Phe Gly Lys Thr Val Gly Pro
1964                1045                1050                1055
```

RAW SEQUENCE LISTING DATE: 10/04/2001
PATENT APPLICATION: US/09/759,130A TIME: 13:00:32

Input Set : A:\10147-61.app
Output Set: N:\CRF3\10042001\I759130A.raw

```
1966 Gly Pro Glu Leu Ser Pro Thr Gly Thr Arg Leu Ala Ser Thr Phe Val
1967            1060                1065                1070
1969 Ser Glu Met Ser Ser Leu Leu Glu Met Leu Leu Gly Gln His Thr Val
1970        1075                1080                1085
1972 Pro Val Glu Ala Ala Ser Ala Ala Leu Arg Arg Leu Ser Val Cys Gly
1973    1090                1095                1100
1975 Arg Thr Leu Ser Leu Asp Leu Ala Thr Ser Gly Ala Ser Ala Ser Glu
1976 1105                1110                1115                1120
1978 Ala Gln Gly Arg Lys Lys Ala Ala Glu Ser Arg Leu Gly Cys Gly
E--> 1979                1125                1130                1135
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Use of n and/or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to insure a corresponding explanation is presented in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY DATE: 10/04/2001
PATENT APPLICATION: US/09/759,130A TIME: 13:00:35

Input Set : A:\10147-61.app
Output Set: N:\CRF3\10042001\I759130A.raw

L:20 M:270 C: Current Application Number differs, Replaced Current Application Number
L:21 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:391 M:252 E: No. of Seq. differs, <211>LENGTH:Input:1151 Found:911 SEQ:3
L:859 M:283 W: Missing Blank Line separator, <400> field identifier
L:860 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (9) SEQUENCE:
L:864 M:283 W: Missing Blank Line separator, <400> field identifier
L:865 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (10) SEQUENCE:
L:869 M:283 W: Missing Blank Line separator, <400> field identifier
L:870 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11) SEQUENCE:
L:874 M:283 W: Missing Blank Line separator, <400> field identifier
L:875 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (12) SEQUENCE:
L:879 M:283 W: Missing Blank Line separator, <400> field identifier
L:880 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (13) SEQUENCE:
L:884 M:283 W: Missing Blank Line separator, <400> field identifier
L:885 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (14) SEQUENCE:
L:889 M:283 W: Missing Blank Line separator, <400> field identifier
L:890 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (15) SEQUENCE:
L:894 M:283 W: Missing Blank Line separator, <400> field identifier
L:895 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (16) SEQUENCE:
L:899 M:283 W: Missing Blank Line separator, <400> field identifier
L:900 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (17) SEQUENCE:
L:904 M:283 W: Missing Blank Line separator, <400> field identifier
L:905 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (18) SEQUENCE:
L:909 M:283 W: Missing Blank Line separator, <400> field identifier
L:910 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (19) SEQUENCE:
L:914 M:283 W: Missing Blank Line separator, <400> field identifier
L:915 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (20) SEQUENCE:
L:919 M:283 W: Missing Blank Line separator, <400> field identifier
L:920 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (21) SEQUENCE:
L:924 M:283 W: Missing Blank Line separator, <400> field identifier
L:925 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (22) SEQUENCE:
L:929 M:283 W: Missing Blank Line separator, <400> field identifier
L:930 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (23) SEQUENCE:
L:934 M:283 W: Missing Blank Line separator, <400> field identifier
L:935 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (24) SEQUENCE:
L:939 M:283 W: Missing Blank Line separator, <400> field identifier
L:940 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (25) SEQUENCE:
L:944 M:283 W: Missing Blank Line separator, <400> field identifier
L:945 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (26) SEQUENCE:
L:949 M:283 W: Missing Blank Line separator, <400> field identifier
L:950 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (27) SEQUENCE:
L:954 M:283 W: Missing Blank Line separator, <400> field identifier
L:955 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (28) SEQUENCE:
L:959 M:283 W: Missing Blank Line separator, <400> field identifier
L:960 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (29) SEQUENCE:
L:964 M:283 W: Missing Blank Line separator, <400> field identifier
L:965 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (30) SEQUENCE:
L:1348 M:283 W: Missing Blank Line separator, <400> field identifier

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Input Set : A:\10147-61.app
Output Set: N:\CRF3\10042001\I759130A.raw

L:1349 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (34) SEQUENCE:
L:1570 M:283 W: Missing Blank Line separator, <400> field identifier
L:1571 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (36) SEQUENCE:
L:1575 M:283 W: Missing Blank Line separator, <400> field identifier
L:1576 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (37) SEQUENCE:
L:1640 M:252 E: No. of Seq. differs, <211>LENGTH:Input:423 Found:295 SEQ:38
L:1644 M:283 W: Missing Blank Line separator, <400> field identifier
L:1645 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (39) SEQUENCE:
L:1979 M:252 E: No. of Seq. differs, <211>LENGTH:Input:1183 Found:1135 SEQ:42
L:1983 M:283 W: Missing Blank Line separator, <400> field identifier
L:1984 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (43) SEQUENCE:
L:1988 M:283 W: Missing Blank Line separator, <400> field identifier
L:1989 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (44) SEQUENCE:
L:1993 M:283 W: Missing Blank Line separator, <400> field identifier
L:1994 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (45) SEQUENCE:
L:1998 M:283 W: Missing Blank Line separator, <400> field identifier
L:1999 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (46) SEQUENCE:
L:2003 M:283 W: Missing Blank Line separator, <400> field identifier
L:2004 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (47) SEQUENCE:
L:2008 M:283 W: Missing Blank Line separator, <400> field identifier
L:2009 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (48) SEQUENCE:
L:2013 M:283 W: Missing Blank Line separator, <400> field identifier
L:2014 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (49) SEQUENCE:
L:2018 M:283 W: Missing Blank Line separator, <400> field identifier
L:2019 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (50) SEQUENCE:
L:2428 M:283 W: Missing Blank Line separator, <400> field identifier
L:2429 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (62) SEQUENCE:
L:2433 M:283 W: Missing Blank Line separator, <400> field identifier
L:2434 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (63) SEQUENCE:
L:2438 M:283 W: Missing Blank Line separator, <400> field identifier
L:2439 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (64) SEQUENCE:
L:2443 M:283 W: Missing Blank Line separator, <400> field identifier
L:2444 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (65) SEQUENCE:
L:2448 M:283 W: Missing Blank Line separator, <400> field identifier
L:2449 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (66) SEQUENCE:
L:2453 M:283 W: Missing Blank Line separator, <400> field identifier
L:2454 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (67) SEQUENCE:
L:2458 M:283 W: Missing Blank Line separator, <400> field identifier
L:2459 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (68) SEQUENCE:
L:2463 M:283 W: Missing Blank Line separator, <400> field identifier
L:2464 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (69) SEQUENCE:
L:2468 M:283 W: Missing Blank Line separator, <400> field identifier
L:2469 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (70) SEQUENCE:
L:3032 M:283 W: Missing Blank Line separator, <400> field identifier
L:3033 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (79) SEQUENCE:
L:3037 M:283 W: Missing Blank Line separator, <400> field identifier
L:3038 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (80) SEQUENCE:
L:3113 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:81
L:3113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81

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Input Set : A:\10147-61.app
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L:3114 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:81
L:3114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81
L:3283 M:283 W: Missing Blank Line separator, <400> field identifier
L:3284 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (87) SEQUENCE:
L:3331 M:283 W: Missing Blank Line separator, <400> field identifier
L:3332 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (89) SEQUENCE:
L:3336 M:283 W: Missing Blank Line separator, <400> field identifier
L:3337 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (90) SEQUENCE:
L:3411 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:91
L:3411 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:91
L:3412 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:91
L:3412 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:91
L:3604 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:96
L:3604 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:96
L:3605 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:96
L:3605 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:96
L:3790 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:101
L:3790 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:101
L:3791 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:101
L:3791 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:101
L:3972 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:106
L:3972 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:106
L:3973 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:106
L:3973 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:106
L:4150 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:111
L:4150 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:111
L:4151 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:111
L:4151 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:111
L:4253 M:283 W: Missing Blank Line separator, <400> field identifier
L:4254 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (116) SEQUENCE:
L:4258 M:283 W: Missing Blank Line separator, <400> field identifier
L:4259 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (117) SEQUENCE:
L:9840 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:324
L:9840 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:324
L:11213 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:343
L:11213 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:343
L:16904 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:450
L:16904 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:450
L:16904 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:450
L:16951 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:451
L:16951 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:451
L:16951 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:451
L:16983 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:452
L:16983 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:452
L:16983 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:452
L:17009 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:453
L:17009 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:453
L:17009 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:453
L:17036 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:454

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Input Set : A:\10147-61.app
Output Set: N:\CRF3\10042001\I759130A.raw

L:17036 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:454
L:17036 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:454
L:17039 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:454
L:17039 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:454
L:17039 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:454
L:17042 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:454
L:17042 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:454
L:17042 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:454
L:17062 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:455
L:17062 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:455
L:17062 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:455
L:17083 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:456
L:17083 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:456
L:17083 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:456
L:17086 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:456
L:17086 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:456
L:17086 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:456
L:17089 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:456
L:17089 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:456
L:17089 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:456
L:17124 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:457
L:17124 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:457
L:17124 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:457
L:17127 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:457
L:17127 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:457
L:17127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:457